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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,981	05/23/2001	Amanda Maria Elsome	JMYT-233US	3599

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P O BOX 980

VALLEY FORGE, PA 19482-0980

EXAMINER
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MADSEN, ROBERT A

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/763,981	<b>Applicant(s)</b> ELSOME ET AL.	
	<b>Examiner</b> Robert Madsen	<b>Art Unit</b> 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on August 12, 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,6,7 and 9-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,7,9-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. The Amendment filed August 12, 2005 has been entered. Claims 1-3,6,7,9-36 remain pending in the present application.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3,6,7,9,10,13-21,23,25,28-32,34,36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfbeis et al. (US 5407829) in view of De Castro (US 5834626) and Wallach (US 6495368B1) and Jeffrey et al. (US 5976827) and Moretti et al. (1988) and Werkhoven et al. (1981) and Dojindo Online.
4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfbeis et al. (US 5407829) in view of De Castro (US 5834626) and Wallach (US 6495368B1) and Jeffrey et al. (US 5976827) and Moretti et al. (1988) and Werkhoven et al. (1981) and Dojindo Online, as applied to claims 1-3,6,7,9,10,13-21,23,25,28-32,34,36 above, further in view of Walt et al. (US 5512490).

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5. Claims 12,24,26,27 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfbeis et al. (US 5407829) in view of De Castro (US 5834626) and Wallach (US 6495368B1) and Jeffrey et al. (US 5976827) and Moretti et al. (1988) and Werkhoven et al. (1981) and Dojindo Online, as applied to claims 1-3,6,7,9,10,13-21,23,25,28-32,34,36 above, further in view of Horan (US 6149952)

6. Claims 22 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfbeis et al. (US 5407829) in view of De Castro (US 5834626) and Wallach (US 6495368B1) and Jeffrey et al. (US 5976827) and Moretti et al. (1988) and Werkhoven et al. (1981) and Dojindo Online, as applied to claims 1-3,6,7,9,10,13-21,23,25,28-32,34,36 above, further in view of Bacon et al. (US 5030420).

### ***Response to Arguments***

7. Applicant's arguments filed August 12, 2005 with respect to the rejection of made under 35 USC 102 (b) have been fully considered and are persuasive, since neither reference cited teaches the new barrier layer limitation of claim 13. Therefore, the rejection claims 13-15, 18, 26 under 35 U.S.C. 102(b) as being anticipated by Walt (US 5512490) and the rejection of claims 13,15, 23,24, 26 under 35 U.S.C. 102(b) as being anticipated by Walt (US 5244813) have been withdrawn.

8. Applicant's arguments filed August 12, 2005 with respect to the rejections made under 35 USC 103 (a) have been fully considered but they are not persuasive.

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9. Applicant states that the modification of Wolfbeis to use of a transition metal complexes utilizing ligand exchange is not supported by De Castro. Applicant asserts that because De Castro makes use of a variety of sensor mechanisms to detect a 14 different analytes, including hydrogen sulfide, and the only examples of utilizing transitional metal complexes as sensors are for water and oxygen, one of ordinary skill in the art would not have been motivated to modify the sensor mechanism of Wolfbeis used to detect hydrogen sulfide.

10. However, De Castro is directed to providing gaseous sensors that provide a short time to obtain results and can be packaged in small containers (Abstract, Column 5, lines 35-45). One of ordinary skill in the art would recognize that for the purpose of Wolfbeis, bacteria detection in food packaging, quickly obtaining bacteria sensing information and minimizing the space required by the sensor would be advantageous. In addition, De Castro teaches these advantageous sensors can be used to detect 14 types of analytes, including hydrogen sulfide (e.g. Column 13, lines 24-29), as desired by Wolfbeis. De Castro teaches the sensors may utilize a variety of reagents, with "a particularly potent group of reagents" being the transitional metal complexes (Column 14, lines 41-45). One of ordinary skill in the art would be motivated to select the transitional metal complexes for the simple fact that one would want a particularly potent reagent as compared to a standard reagent when detecting the presence of bacteria in a mercantile package (as taught by Wolfbeis) to better assure a safe product.

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11. Applicant further asserts that the additional references Wallach, Jeffrey et al., and Werkhoven et al. is back filling of references and the Examiner has used the invention as a roadmap for hindsight reasoning.

12. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

13. Applicant is also reminded that reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

14. In the instant case Wallach and Jeffrey et al. are relied on as teaching what one of ordinary skill in the art would have known regarding the characteristics of sensors. Wallach teaches the particular detectable component selected for food containers depends on the type of food and microbial spoilage, and Jeffrey et al. teach selecting a fluorophore depends on the desired dynamic ranges and wavelength changes that are detectable by various measuring techniques (Note that the primary reference, Wolfbeis, teaches fluorophores). Thus one of ordinary skill in the art would consider the type of

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food of Wolfbeis, the type of microbial spoilage of Wolfbeis, and the type of measuring technique of Wolfbeis when selecting a particular fluorophore.

15. One of ordinary skill in the art would have had some expectation of success to select palladium-calcein (fluorexon) for the hydrogen sulfide detecting fluorophore sensor of Wolfbeis because De Castro teaches transitional metal complexes are a particularly potent group of reagents for detecting gases such as hydrogen sulfide in a small and short time evaluating sensor, and Moretti et al. and Werkhoven et al. teach a specific transitional metal complex fluorophore, palladium-calcein (fluorexon), is suitable for detecting sulfides/sulfur compounds by providing a measurable change in fluorescence. Wallach and Jeffrey et al. support that one would have been motivated to select this particular transitional metal complex since (1) selecting a detectable component depends on the type of spoilage and the type of spoilage and Wolfbeis requires a detectable component capable of sensing hydrogen sulfide and (2) selecting a fluorophore depends on the particular measuring technique and Wolfbeis teaches measuring techniques with fluorophores.

### ***Conclusion***

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (571) 272-1402. The examiner can normally be reached on 8:00AM-4:30PM M-F.


18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert Madsen  
Examiner  
Art Unit 1761



RAM



MILTON I. CANO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700